PATENT

Atty Docket No.: 10006299-1
App. Ser. No.: 09/854,580

REMARKS

Favorable reconsideration of this application is respectfully requested in view of the amendments above and the following remarks. By virtue of the claim amendments, Claims 1, 8, 15, and 21 have been amended and Claims 30 and 31 have been added. In addition, Claims 7 and 26 have been canceled without prejudice or disclaimer of the subject matter contained therein. Therefore, Claims 1-4, 6, 8-12, 14-18, 20, 21, 25, and 27-31 are currently pending in the present application, of which Claims 1, 8, 15, and 21 are independent.

No new matter has been introduced by way of the claim amendments or additions; entry thereof is therefore respectfully requested.

Claim Rejection Under 35 U.S.C. §112, first paragraph

The Official Action has set forth a rejection of Claims 1-4, 6-12, 14-18, 20, 21, and 25-29 as allegedly failing to comply with the written description requirement of 35 U.S.C. §112, first paragraph. More specifically, the Official Action alleges that the disclosure contained in lines 9-12 of page 5 fails to disclose "using the measurement (e.g., contrast level) of the human faces to carry out" the claimed image enhancement as set forth in amended Claims 1, 8, 15, and 21.

Applicants respectfully submit that at least the disclosure contained on lines 13-23 of page 5 and the disclosure corresponding to the flow diagram depicted in Figure 3 provide adequate support for the above-cited amendments. Nevertheless, Applicants have amended Claims 1, 8, 15, and 21 to remove the step of using the measurement of the human faces to automatically enhance an appearance of the image to further prosecution of the present application.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 1-4, 6-12, 14-18, 20, 21, and 25-29.

Claim Rejection Under 35 U.S.C. §103

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 1, 2, 8, 10, 15, 16, 21, and 27-29

The Official Action sets forth a rejection of Claims 1, 2, 8, 10, 15, 16, 21, and 27-29 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in U.S. Patent No. 6,292,574 to Shildkraut et al. in view of U.S. Patent No. 6,181,806 to Kado et al. This rejection is respectfully traversed because Shildkraut et al. considered singly or in combination with Kado et al. fails to disclose all of the elements of independent Claims 1, 8, 15, and 21 and the claims that depend therefrom.

Claims 1, 8, 15, and 21, as amended, recite in various forms, *inter alia*, that an appearance of an image is enhanced by using a mapping technique to produce the image with target levels for a mean value or a variation value of the pixels in the human faces. As such, Claims 1, 8, 15, and 21 have been amended to include the features of canceled Claims 7 and 26. Further support for the amendments to Claims 1, 8, 15, and 21 may be found in the examples contained on pages 5 and 6 of the present Specification.

The Official Action has indicated that the combined disclosures of Shildkraut et al. and Kado et al. fail to disclose the features of Claims 7 and 26. In an effort to make up for the deficiencies in Shildkraut et al. and Kado et al., the Official Action relies upon the disclosure contained in U.S. Patent No. 5,410,618 to Fowler. More particularly, the Official Action asserts that disclosure contained in Fowler discusses the use of a mapping technique to produce the image with target levels for a mean value or a variation value. It is respectfully submitted that the disclosure contained in Fowler fails to disclose the claimed invention and that the proposed modification of Shildkraut et al. and Kado et al. with Fowler is improper and also fails to disclose the claimed invention.

Fowler pertains to a method for enhancing lofargram images by using a modified rule-based method. Column 2, lines 25-28. Fowler further states that "[t]he purpose of the present invention is to provide a gray-scale mapping of lofargram data enhancing it in such a way as to make signals of interest more readily visible and distinguishable from background noise and to display more clearly the structure of the signals for better characterization." Column 2, lines 28-35. As is generally known, "lofargrams" are spectrum displays of a passive sonar system that evolve in time and are typically employed in submarines. In addition, the spectrums in lofargrams are typically displayed as vertical strips.

In this regard, Fowler discloses that "[t]he system will accept lofargram data and carry out an estimation process wherein the mean value and variance value of the frequency data within a lofargram are computed as a function of frequency for a series of vertical strips covering the lofargram image." Column 2, lines 35-39. In addition, in lines 15-30 of column 3, Fowler discusses the use of a rule base "to enhance the lofargram data contained within each frequency strip...[which] is achieved by using the rule to convert the old mean and variance for the frequency strip into a new, enhanced mean and variance." Fowler also discloses that the "new mean and variance are used to determine at step 6 a scaling and a biasing factor for the frequency strip, that enhances the strip to a visual range more easily viewed by the human eye...the enhanced frequency strips are then stitched back together at step 8 providing a complete, enhanced lofargram image."

In summary, therefore, Fowler discloses a method for enhancing frequency strips of a lofargram image, which is generally implemented to improve the display of sonar images while reducing background noise of the received sonar signals. Column 2, lines 28-35. As such, Fowler does not disclose nor could Fowler reasonably be interpreted to disclose that target values for a mean value or a variation value of the pixels in human faces are produced. Consequently, Fowler fails to disclose automatically enhancing an appearance of an image by using a mapping technique to produce the image with target levels for a mean value or a variation value of the pixels in the human faces, as claimed in independent Claims 1, 8, 15, and 21.

Accordingly, even if one of ordinary skill in the art were somehow motivated to combine the disclosures of Shildkraut et al., Kado et al., and Fowler, the proposed combination would still fail to disclose all of the features of Claims 1, 8, 15, and 21 and the claims that depend therefrom.

In addition, contrary to the allegation in the Official Action, there appears to be no proper motivation to combine the disclosures of Shildkraut et al., Kado et al., and Fowler. More particularly, there appears to be no proper motivation to combine these disclosures because Fowler pertains to enhancement of vertical frequency strips of sonar image data; whereas Shildkraut et al. pertains to redeye detection and Kado et al. pertains to the identification of a person using facial features. Thus, although Shildkraut et al., Kado et al., and Fowler are concerned with image enhancement, Fowler is concerned with a completely different field of image enhancement.

In addition, the Official Action has provided no evidence that the proposed combination of Shildkraut et al., Kado et al., and Fowler would result in giving "a user better control in enhancement process so that the resultant image can have a desired appearance or perceptual quality specific to the user's preference" as alleged in the Official Action. In fact, because the disclosures contained in Shildkraut et al., Kado et al., and Fowler are so drastically different, there is absolutely no clear indication as to what the proposed combination would yield. However, it appears extremely likely that the proposed combination would not yield the features claimed in Claims 1, 8, 15, and 21 of the present invention and the claims that depend therefrom.

At least by virtue of the failure in Shildkraut et al., Kado et al., and Fowler to teach or suggest the above identified elements of independent Claims 1, 8, 15, and 21, a *prima facie* case of obviousness has not been established under 35 U.S.C. § 103. Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 1, 8, 15, and 21 and the claims that depend therefrom and to allow these claims.

Claims 3, 4, 11, 12, 17, and 18

The Official Action sets forth a rejection of Claims 3, 4, 11, 12, 17, and 18 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in Shildkraut et al. in view of Kado et al., and further in view of U.S. Patent No. 6,680,745 to Center, Jr. et al. This rejection is respectfully traversed because Shildkraut et al. considered singly or in combination with Kado et al. and Center, Jr. et al. fails to disclose all of the elements of independent Claims 1, 8, and 15 and the claims that depend therefrom.

The Official Action asserts that Center, Jr. et al. discloses that contrast and/or color is changed to enhance an appearance of an image. The Official Action does not however, assert that Center, Jr. et al. discloses automatically enhancing an appearance of an image by using a mapping technique to produce the image with target levels for a mean value or a variation value of the pixels in the human faces, as claimed in independent Claims 1, 8, 15, and 21. As such, Center, Jr. et al. does not make up for the deficiencies in Shildkraut et al. and Kado et al. as described above. The proposed combination of Shildkraut et al., Kado et al, and Center, Jr. et al., therefore, fails to disclose all of the features of independent Claims 1, 8, 15, and 21 and the claims that depend therefrom.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 3, 4, 11, 12, 17, and 18 and to allow these claims.

Claims 6, 14, 20, and 25

The Official Action sets forth a rejection of Claims 6, 14, 20, and 25 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in Shildkraut et al. in view of Kado et al., and further in view of U.S. Patent No. 6,009,209 to Acker et al. This rejection is respectfully traversed because Shildkraut et al. considered singly or in

combination with Kado et al. and Acker et al. fails to disclose all of the elements of independent Claims 1, 8, 15 and 21 and the claims that depend therefrom.

The Official Action asserts that Acker et al. discloses " reducing or removing the red eye artifact from the human faces." The Official Action does not however, assert that Acker et al. discloses automatically enhancing an appearance of an image by using a mapping technique to produce the image with target levels for a mean value or a variation value of the pixels in the human faces, as claimed in independent Claims 1, 8, 15, and 21. As such, Acker et al. does not make up for the deficiencies in Shildkraut et al. and Kado et al. as described above. The proposed combination of Shildkraut et al., Kado et al, and Acker et al., therefore, fails to disclose all of the features of independent Claims 1, 8, 15, and 21 and the claims that depend therefrom.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of Claims 6, 14, 20, and 25 and to allow these claims.

Claims 7 and 26

The Official Action sets forth a rejection of Claims 7 and 26 under 35 U.S.C. §103(a) as allegedly being unpatentable over the disclosure contained in Shildkraut et al. in view of Kado et al., and further in view of U.S. Patent No. 5,410,618 to Fowler. This rejection is considered moot because Claims 7 and 26 have been canceled without prejudice or disclaimer of the subject matter contained therein. Instead, the features contained in Claims 7 and 26 have been added to Claims 1, 8, 15, and 21 and the Fowler document has been discussed above.

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Newly Added Claims

New Claims 30 and 31 have been added to further define the scope of the invention. Support for the features of Claims 30 and 31 may at least be found in the examples provided on pages 5 and 6 of the present Specification. Claims 30 and 31 are allowable over the prior art of record at least by virtue of their dependencies upon allowable Claim 1.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

Dated: November 22, 2005 By _____

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